Using the HP StorageWorks Interface Manager Card in Two-Unit ESL9000 Configurations

Product Version: 1

Second Edition (May 2004)

Part Number: 359128-002

This document explains how to install an HP StorageWorks Interface Manager for ESL-Series Tape Libraries into a configuration that uses two ESL9000 Series tape libraries in a scaled configuration.
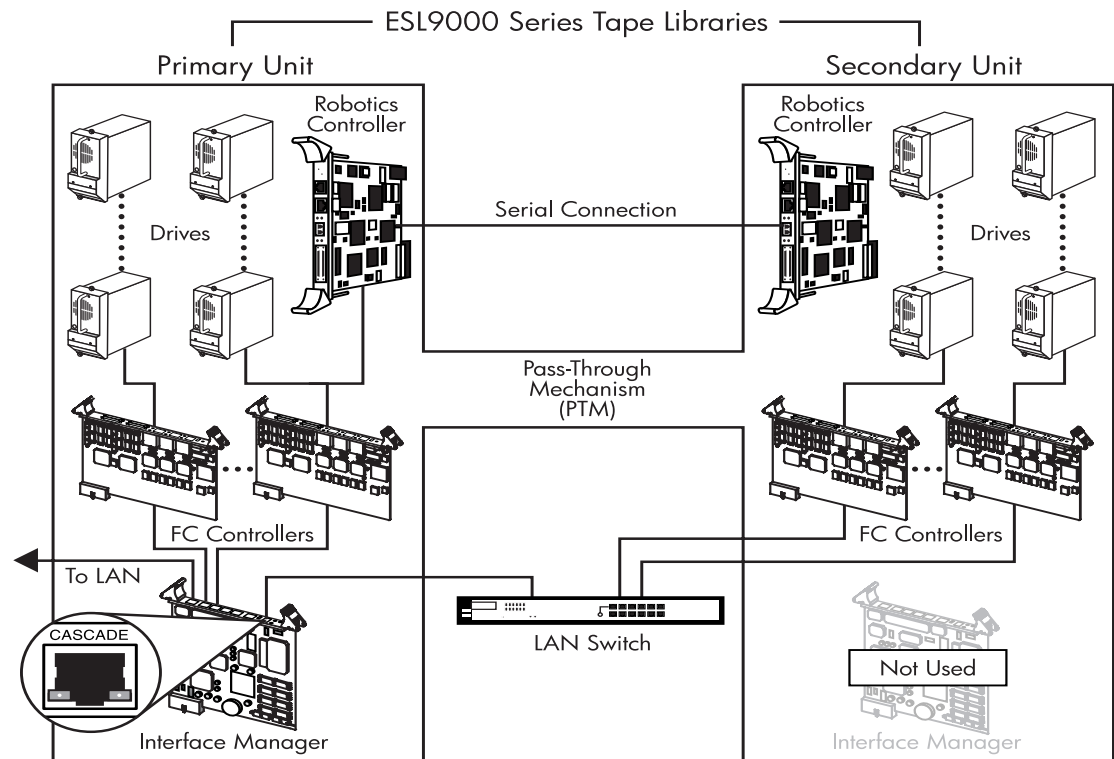
hp

i n v e n t

Overview

HP StorageWorks ESL9000 Series tape library units can be scaled together to appear as one large library to applications in the SAN. The HP StorageWorks Interface Manager card, a key part of the HP Extended Tape Library Architecture, supports up to two-unit scalability in ESL9000 Series tape libraries.

In a two-unit configuration, only one Interface Manager card is used to manage both library units. Library units are physically connected using the Pass-Through Mechanism, and logically connected using a LAN switch (see the "LAN switch requirements" section at the end of this document). The unit in which the Interface Manager card in used is referred to as the primary unit.

A two-unit configuration is configured as follows:

■ The FC interface controllers in the primary unit are connected to the ports of the Interface Manager card labeled "To Fibre Channel Controller."

■ The port of the Interface Manager card labeled "Cascade port" is connected to one port of the LAN switch. The remaining ports of the switch are connected to the FC interface controllers in the secondary unit.

■ The robotic controller in the primary unit is connected to one of the FC interface controllers in that unit. The robotic controller in the secondary unit is connected to the first unit via a serial connection established by the PTM.

Figure 1 shows an overview of the two-unit configuration.

10150

Figure 1: Two-unit configuration overview

Hardware setup

1. Refer to the *HP StorageWorks ESL9000 Series Pass-Through Mechanism (PTM) Installation Guide* to connect the two ESL libraries.

Note: Although the ESL9000 series of libraries supports connection of up to five libraries, the Interface Manager card only supports management of a two-library configuration.

---

2. Install the Interface Manager card into the library designated as the primary unit. Do not connect any cables at this point. See the *HP StorageWorks Interface Manager and Command View ESL Installation Guide* for instructions on how to install the Interface Manager card.

Note: Although an Interface Manager card may also be installed in the secondary unit, it is unused and should not have any cables connected to it.

---

3. Install the externally mounted LAN switch. This switch is not part of the ESL PTM and must be ordered separately (see the "LAN switch requirements" section at the end of this document).

Connecting the cables

1. Connect the FC interface controllers in the primary unit to the ports on the Interface Manager card labeled "To Fibre Channel Controllers."
2. Connect one port of the LAN switch to the Cascade port of the Interface Manager card.
3. Connect the remaining ports of the LAN switch to the FC interface controllers in the secondary unit.

⚠ **Caution:** The LAN switch is intended to connect the Interface Manager card with the FC interface controllers. Do not connect any other network devices to this switch.

---

4. In the primary unit, connect the robotics controller to one of the FC interface controllers.
5. In the secondary unit, install a SCSI terminator on the robotics controller. *Do not* connect the robotics controller to an FC interface controller in the secondary unit. The robotic controller in the second unit is already connected to the first unit via the PTM. See the *HP StorageWorks Interface Manager and Command View ESL Installation Guide* for more information on SCSI/Fibre cabling.

No changes in the SCSI drive connections are required. In both the primary and secondary units, the drives should remain connected to the FC interface controller within that unit.

After completing these steps and powering on the library units, the Interface Manager card and Command View ESL software can be used to manage both units as a single large library.

LAN switch requirements

A LAN switch is required to use the PTM with the Interface Manager card and Command View ESL management software. The LAN switch used must meet the following specifications:

■   Must have a minimum of five RJ-45 ports, including one uplink port

■   Must have all ports 10/100 autosensing

■   Must support half and full duplex modes

■   Must support IEEE 802.3

■   Must have FCC class B (US), or equivalent local certification

This LAN switch is used to connect the Interface Manager card in the primary unit to the Fibre Channel interface controllers in the secondary unit. Do not make any other external LAN connections to this switch.